“Out of the clear blue of the western sky”

The Bamboo Bomber
Cessna Aircraft built its earliest T-50 twins as civilian aircraft for the commercial light transport market. The airplane, which was first flown in March of 1939, was made of wood and tubular steel and covered in fabric. According to Classic-Warbirds.net, the T-50 was “a lightweight and low-cost twin for personal use, where larger aircraft such as the Beech 18 would be too expensive.” At the time, it was an attractive aircraft for this market.

But then, Germany invaded Poland. Because civilian aircraft production was suspended during World War II, aircraft companies looked to gain military contracts. Dwane Wallace of Cessna Aircraft secured contracts from two governments—the United States and Canada—and the company set about building the AT-17 Bobcat, the military version of the Cessna T-50.

During the war, this training aircraft was used mainly to “bridge the gap between single-engine trainers and twin-engine combat aircraft,” according to Classic-Warbirds.net. In the article “King of the Tailwheels” in the April 2012 issue of *Cessna Flyer*, Lyn Freeman provides these details: “Army Air Corps pilots who flew the C-47, B-25, B-24, B-17 and B-29 all took their advanced training in the Bobcat.” Some may also recall that Kirby Grant flew a Bamboo Bomber—the original *Songbird*—in the first 39 episodes of the 1950s television series “Sky King.”

**An enchanting old bird**

Bamboo Bomber enthusiast and historian Terry Sullivan has been enchanted by the Cessna T-50 and its military versions, the AT-17 and UC-78, for a long time.

Sullivan was born in the Midwest but has lived in Louisiana since the mid-1960s. Sullivan’s father was in the Army Air Force during World War II and afterward he stayed in the military; the family moved several times.

“I came across a picture I had taken with my Brownie box camera—two of these old black-and-white photos [of Bamboo Bombers] taken when we were up in Alaska. It was around 1960, so I must have been 11 or 12 years old.” Sullivan learned how to fly after college. He’s a pilot and an A&P, and his wife, Barbara, is also an aviator. Sullivan’s
life work was not in aviation, though. He recently retired from the oil and gas industry; Barbara celebrated her own retirement just days before I spoke with Terry. The couple lives in Bossier City, La., on the final approach path for Barksdale AFB, Runway 15. “When we were in the process of buying our house, the realtor said the only thing [about the location] was that ‘there’s too much airplane noise.’ But Barbara and I, veterans of numerous trips to Oshkosh [for EAA AirVenture] and other aviation events, both feel that you can’t have too much airplane noise!”

I’d venture to say that radial engine noise—particularly that from a fully restored Cessna T-50, is perhaps among one of Sullivan’s favorites. “Those Jacobs R-755-9s on the Bobcat have a beautiful sound, like 20 Harleys at a stoplight,” Sullivan said of the aircraft.

In addition to the Bamboo Bomber, the couple owns a Piper Comanche 250 (“a great cross-country airplane,” he said), which they’ve had for about 13 years. “We get them and keep them a long time,” said Sullivan. That’s good, because T-50s are quickly going away.

Dwindling numbers

“It’s a majestic airplane,” Sullivan said, and—though some had nicknamed the UC-78 “the Useless 78” for its limited application and performance—a popular one. “Between 1939 and 1945 Cessna built more than 5,400 of these aircraft, and most all of them went to the military.”

Today only a fraction of those remain. This shrinking of the fleet can be traced to many factors: the aircraft’s size (it can be difficult to hangar); general age and deterioration of the wooden airframes; a drastic change in fashion (even “Sky King” switched to the Cessna 310); and the hardships of maintenance.

It seemed as if everyone—even the aircraft’s maker—turned away from the Bobcat. Daryl Murphy, in his article “The Making of the Cessna 310” (Cessna Flyer, August 2004) writes, “[Cessna] management insisted that the T-50 was to be ignored and concentration focused on all-metal, horizontal-engine aircraft.”

Murphy continued, “By 1950, the nation had rid itself of almost everything that reminded it of the war. Cessna had shed every vestige of the T-50 Bobcat, including the prototype and virtually all spare parts. Lest it be criticized for abandoning history and tradition, remember, the company was only 16 years old.”

Sullivan explains how they did it. “In 1945 and ‘46, the remaining military
Terry Sullivan is a pilot and an A&P, and his wife, Barbara, is also an aviator. Both are veterans of numerous trips to Oshkosh and other aviation events.
planes were sold to the civilian market. The new owners bought a kit to demilitarize them. It was called an NC Licensing Kit. The kit removed a generator, military numbers and made other changes.”

Once that was accomplished, [the aircraft] was granted a Standard Category Airworthiness Certificate. Those demilitarized aircraft were certified under the original Type Certificate, ATC-722, issued March 24, 1940 and Sullivan explained, “they all became T-50s again even though there were a lot of design changes to the military models that were not present on the original T-50s.”

Many surplus T-50s were used by small airlines, charter and bush operators and private pilots. By the 1970s, the number of airworthy aircraft had dwindled. FAA records for 2009 show 378 T-50s, 10 AT-17s and 30 UC-78s, according to Wikipedia.

That number may be accurate as far as registrations, but actual flying aircraft is likely much lower. “Best guess today is there might be 25 or so still flying,” said Sullivan.

The airshow circuit

“I have flown this aircraft type on the airshow circuit for a long time,” said Sullivan. Mostly the Bamboo Bomber is used for static display, and he occasionally flies it for demonstration purposes. It always draws a crowd.

“I don’t give rides,” Sullivan cautioned. And he doesn’t take it far from home. “I keep [the travel times] to around an hour, hour and a half away from the home base,” he said. “I support all local events, weather permitting.”

“But when I had the museum airplane, I’d put my girls [my daughters and wife] in the back, and we’d fly to airshows as a family. We had a great time!”

The “museum plane” was the very first T-50 Sullivan was involved with. That aircraft, N711UU, belonged to Mid-America Air Group, a flying museum out of Oklahoma City.

“The museum placed N711UU under my care for three years in the 1980s to be flown on the airshow circuit,” said Sullivan. “I had to pay for everything! The museum later recalled the aircraft and it is currently on static display at the Liberal Air Museum in Liberal, Kan. It was a great experience.”

Sullivan’s second T-50 was N91088. Sullivan acquired N91088 in 1990 as a derelict. The aircraft, which is officially a UC-78C, was not flyable and not restorable without major money, but all the metal parts were there.

T-50
Company design number. Five-seat twin engine commercial transport aircraft fitted with Jacobs L-4MB radial piston engines.

AT-8
Military trainer version of the T-50 with two 295 hp Lycoming R-680-9 radial piston engines. 33 built.

AT-17
As the AT-8, but powered by 245 hp Jacobs R-775-9 (L-4) engines. 450 built; some later converted to AT-17E.

AT-17A
As the AT-17, but with metal propellers and reduced weight. 223 built; 182 to Canada as Crane IAs.

AT-17B
As the AT-17A, but with equipment changes. 466 built. Subsequent aircraft were built as UC-78Bs.

AT-17C
As the AT-17A, but different radio equipment. 60 built.

AT-17D
As the AT-C with equipment changes. 131 built.

AT-17E
AT-17 with gross weight limited to 5,300 pounds.

AT-17F
AT-17A with gross weight limited to 5,300 pounds.

AT-17G
AT-17B with gross weight limited to 5,300 pounds.

C-78
Military transport version for the United States Army Air Forces; redesignated UC-78 in 1943. 1,354 built.

UC-78
C-78 redesignated in 1943; variable-pitch propellers.

UC-78A
17 impressed civilian T-50s.

UC-78B
Originally the AT-17B; wooden propellers and reduced weight. 1,806 built.

UC-78C
Originally the AT-17D, same as UC-78B with equipment changes. 196 built and 131 AT-17Ds redesignated.

JRC-1
Navy light transport version of the UC-78 with two Jacobs R-775-9 engines. 67 delivered.

Crane I
Royal Canadian Air Force designation for T-50s with minor equipment changes. 640 delivered as light transports.

Crane IA
182 AT-17As delivered to Canada under lend-lease.

Source: Wikipedia.org
“[I figured] it would take two to make one,” he said, “and I used N91088 as a parts plane in the restoration of N66671.” N66671 is the third T-50 Sullivan has flown and cared for.

“Just about everything on N66671 from the main spar forward is [from] N91088....landing gear, cowls, fairings, engines, props. What’s left of the wing of N91088 is hanging from the ceiling in my hangar in Shreveport (KDTN).”

He also told me that N91088 would be a great project to restore because of its unique history. Sullivan’s associate and friend Michael McMurtrey, a historian in Carrollton, Tex., has done the research on many of these wartime trainers.

Sullivan told me, “Mike’s research says that N91088 is one of 11 identified as being assigned to the 318th Army Air Forces Flying Training Detachment, Avenger Field, Sweetwater, Tex. [the WASP training base]. Of these known 11 airplanes assigned to train WASPs, six were sold surplus at the end of the war, but N91088 is the only survivor.

“The fuselage of N91088 is on display at the Flight of the Phoenix Aviation Museum (FOTPAM) in Gilmer, Tex. (KJXI). Many thanks go out to my friend Steve Dean, curator, for his support,” Sullivan said.

Sullivan’s own restoration project

N66671 is a 1943 Cessna UC-78B. It came out of the Cessna factory and went directly to the Army Air Force as a trainer with duty stations in New Mexico and Southern California.

“[In 1945] the aircraft was declared surplus and sold by the Reconstruction Finance Corp. to the civilian market,” Sullivan explained. “The first owner demilitarized it and over the next 40 years it went through numerous owners until being sold to Dick Rice of Kennett, Mo. After a landing accident that destroyed the right wing, I acquired what was left in 1994, disassembled it and transported the bones to Shreveport, La., where it is today.

“At the time, I had young children and with that comes schools, college, weddings, etc., to pay for, so not much happened on the Bobcat for several years.”

“In 2009, I got far enough along on the restoration process to fly it, and the work continues.”
Restoration help

“I’m an A&P, but not an IA,” Sullivan explained. “Numerous people help me with maintenance.”

Of the Bamboo Bombers’ metal frame, he said, “lots [of these airframes] are still around, but just the cost of the wood and labor [needed for the restoration] doesn’t offer a return on the investment. It’s not like a P-51,” he explained. “You have to be dedicated to the preservation of the type.”

According to ClassicWarbirds.net, the wing of the T-50 uses laminated spruce spar beams with spruce and plywood ribs. “If you have the woodworking expertise, it’s just a big model airplane, not difficult—just time-consuming,” said Sullivan.

Others besides Sullivan have taken on the labor-of-love challenge to restore a deteriorated T-50. John Pike at Big Sky Stearman in Oregon is in the process of building wings and tails which cost a lot, said Sullivan. The company will also help other restorers with owner-produced wooden wings.

Sullivan’s project was for the most part, locally accomplished. In particular, Terry Sullivan gives his thanks to Dean R. Williams, A&P in Blanchard, La., for his engines and airframe assistance; Rick Grimsley, A&P-IA in Mansfield, La. for his help with the airframe, paperwork and avionics; and Cindy Smith of Shreveport, La. for her help with avionics.

Parts and technical support were contributed by Monty Walford at J&M Aircraft Supply in Shreveport, La., and Jon Larson in Auburn, Wash. The CessnaT50.org website is maintained by Mike James in Anchorage, Alaska.

Terry Sullivan is also grateful to his wife Barbara and his daughters Stacey Sullivan and Shannon Smith for all of their moral support on the Bamboo Bomber project.

The aircraft is painted in the colors of the 2nd Bomb Group, 429th Bomb Squadron. “It was my father’s B-17 outfit in Italy during World War II, although this aircraft never left the United States. I took a bit of liberty there to honor my father and all the others that served in that war,” said Sullivan.

“Every day, this aircraft gets more historically valuable.” (I’ll say!)

Other Bamboo Bomber enthusiasts

“Some time ago there was a Bamboo Bomber Club. It was run by Jim and Paul Anderson in Minnesota who also own and maintain a Bobcat. You can see pictures of that airplane on my site,” said Sullivan.

“I needed a place to put all my restoration photos so I called Jim and found out that the website was dormant. Jim offered to let me have the site, so I took it and kept the name.

“There is no club, no officers, no dues, no newsletter,” he joked. But there is a fair amount of activity. “You’d be surprised how many people call and email [me],” Sullivan said. Some of this activity comes from folks building flyable models of the T-50 even as far away as Europe.

“Not too many World War II vets that flew it [get in touch], but there’s site traffic from people my age or older; people looking to identify this part or that part, or [questions like] ‘Can you help me locate a particular airplane?’” He also gets solicitations from people who want to sell parts.

“I try to help,” he said. “I answer everyone.” And sometimes that answer is in the form of a referral.

“There are several people who have a lot of T-50 knowledge,” said Sullivan. One of them is Jon Larson, founder of The Flying Bobcats. “He knows more about this aircraft then anyone on the planet and kept the interest alive when nobody cared,” said Sullivan. Another is Mike McMurtrey. “Mike has taken on an ambitious project: compiling a book that tracks the whereabouts of every single [T-50] airframe that was ever built.”

Insurance, operating costs

“Insurance is not unavailable,” Sullivan reported. “It’s not cheap... but it is out there.”

“The insurance company I’m with now, there are no special requirements for training in this airplane,” but he added, “they are stringent as far as times in type, and [who would be considered] a qualified pilot. Big taildraggers can be intimidating and dangerous airplanes.”

Besides the chance of an expensive AOG scenario, another reason Sullivan keeps his flights close to home have to do with the per-hour costs. “It’s about $325 per hour to operate,” he said. Regarding insurance, he told me, “You don’t even want to know that number!”

Sullivan’s Bamboo Bomber is hangered at Shreveport Downtown Airport (KDTN). “I’m pretty cautious with it,” he said. “This aircraft is a piece of history, and I’m only a caretaker.”

As we closed our conversation, Terry let me know that while the snow was swirling around in minus-20 degree skies at my house, a B-52, at pattern altitude, was going overhead at his house en route to Runway 15 at Barksdale AFB. Barksdale, I later found out, is considered The Home of the B-52 and the Headquarters for the 2nd Bomb Group. Terry Sullivan’s Bamboo Bomber must feel right at home.

Heather Skumatz is the associate editor at Cessna Flyer magazine. Send questions or comments to editor@cessnaflyer.org.

Sources: BigSkyStearman.com; Cessnat50.org; ClassicWarbirds.net; “Bobcat UC-78” by Charles Lloyd and Daryl Murphy, Cessna Flyer, March 2005; “King of the Tailwheels” by Lyn Freeman, Cessna Flyer, April 2012; “The Making of the Cessna 310” by Daryl Murphy, Cessna Flyer, August 2004; Wikipedia.org.

Resources

Cessna T-50/UC-78 Type Club

“Preserving the history of a great aircraft” cessnat50.org


Cessna AT-17

SPECIFICATIONS

GENERAL CHARACTERISTICS

Crew: 5
Length: 32 feet, 9 inches
Wingspan: 41 feet, 11 inches
Height: 9 feet, 11 inches
Wing area: 295 square feet
Empty weight: 3,500 pounds
Gross weight: 5,700 pounds
Max takeoff weight: 6,062 pounds
Powerplant: (2) Jacobs R-755-9 seven-cylinder, air-cooled, radial piston engines, 245 hp each

PERFORMANCE

Maximum speed: 169 knots (195 mph)
Cruise speed: 152 knots (175 mph)
Service ceiling: 22,000 feet